

***New ISO 9000:2005 Edition
Avoiding Common Decision Making Mistakes
In Search of the Perfect Process***

Latest ISO Survey confirms integration of ISO 9001 and ISO 14001 with world economy

The published September 2005 latest edition of *The ISO Survey of Certifications* confirms the “thorough integration” of ISO 9001 and ISO 14001 with the world economy. The survey also shows the success of the ISO 9001:2000 transition and reveals that the service sectors are now by far the biggest users of the standards.

The annual survey, now in its 14th edition, provides a worldwide panorama of certification to ISO’s quality and environmental management system standards. The latest edition reveals the situation at the end of 2004, the first full year after the three-year period allowed for transition to the ISO 9001:2000 version.

The worldwide total of certificates to the ISO 9001:2000 quality management systems standard at the end of 2004 was 670,399, an increase of 35 % over the previous year and 64 % over 2000, the year before the transition to ISO 9001:2000 began. Certificates had been issued in 154 countries compared to 149 a year earlier.

The principal survey findings are provided on ISO’s Web site, including world, regional and country breakdowns. <http://www.iso.org/iso/en/commcentre/pressreleases/2005/Ref967.html>

New ISO 9000:2005 Edition

ISO 9000:2000, the standard that defines the vocabulary (and describes the fundamentals) of quality management systems, has been replaced with a new edition: ISO 9000:2005.

ISO 9000:2005, *Quality management systems - Fundamentals and vocabulary*, introduces no changes to the descriptions of the fundamentals of quality management systems. However, some definitions have been added, and explanatory notes expanded or added, to take into account more recent documents in the ISO 9000 family.

The primary reason for this new edition is to provide a single, unambiguous meaning of key words used in various management systems standards, in particular, **ISO 9001:2000, *Quality management systems – Requirements*** and **ISO 19011:2002, *Guidelines for quality and/or environmental management systems auditing***. To reflect these changes, a number of the diagrams appearing in ISO 9000 have been enhanced in the 2005 version.

ISO 9000:2005 will be useful for all users of standards in the ISO 9000 family, and especially for:

- Suppliers, customers, and regulators - providing them with a common understanding of the terminology of quality management,
- People who assess QMS, or audit them for conformity to ISO 9001:2000 – such as internal auditors, external auditors of certification bodies, and regulators, and
- Providers of consultancy or training on QMS.

ISO 9000:2005, *Quality management systems – Fundamentals and vocabulary*, ISO 9000:2005 is available through [ANSI](#) (and soon through [ASQ](#)).

Avoiding Common Decision Making Mistakes

Failure to recognize a problem

Managers may be too busy with day-to-day operations to recognize the problems. Or, they may be resigned to the way the system works and not take responsibility. If plans and schedules are not being met, management must take action.

2. Incorrect problem determination

Symptoms are often mistaken for real problems. Effects are often confused with causes. Why? Because they are more obvious. Dealing with the wrong problem is a bad decision and will likely result in an unsatisfactory solution. Identify the real problem and its causes.

3. Insufficient consideration of alternatives

There may be several possible solutions for a problem. Not thinking through the alternatives exposes management to the risk of overlooking a sound, practical solution. Making decisions requires careful thought, as well as, investigation beyond the obvious.

4. Inadequate evaluation of risk

Failure to evaluate the risk associated with a decision may result in a high-cost, complex solution. Reduce the risk by considering alternatives and properly training employees on the solution.

5. Repetitive decisions

Recurring problems may result in similar decisions being made on a case-by-case basis. Implementing new policies and procedures may offer a better solution.

6. Unnecessary decisions

Don't rush to judgment. If the problem isn't expected to get worse, the best action may be to simply watch and wait. Monitor the situation and take action if further developments merit it.

7. Delayed Decisions

Fast decisions, not snap decisions, offer two advantages. Management will have more time to correct the situation if the original decision proves to be wrong.

8. Lack of follow-up

Management must monitor the problem areas to see if the solutions are producing the desired results. Some decisions may not be as effective as first believed.

9. Ignoring input from others

Failing to seek input from others is a crucial error, especially from employees involved in performing the work. Those closest to the problem may have the best ideas.

10. Using the same solutions to solve different problems

Applying people and money is not the solution to every problem. Different problems need different solutions. Avoid pre-conceived notions of how to solve problems.

11. Insufficient data collection

Making decisions based on limited information may result in unsatisfactory solutions. Ensure sufficient facts are available for intelligent decisions.

12. Shooting from the hip

Snap decisions are usually poor decisions that create more problems. Don't be too hasty and miss the mark. Learn from past mistakes.

This Quality Digest article says good decisions are rarely praised, while poor decisions may create legends. However, we know that quality management systems based on ISO 9001 will provide evidence of management's good decisions through the achievement of quality objectives and continual improvement.

In Search of the Perfect Process

In an article in 6L, a journal for Six Sigma and Lean Manufacturing professionals, Jim Womack states, "Unless you have defined from the customer's perspective what specific value is required, it is premature to begin thinking about building or improving processes to deliver it." Womack defines a perfect process as one that is:

1. Valuable
2. Capable
3. Available
4. Adequate
5. Flexible

The perfect process is valuable because it creates and adds value for customers. Start by drawing a *Value-Stream Map* to visualize the process. Then remove the non-value-adding steps. Don't begin by asking if a process step is valuable. First, see if the step is even needed. In other words, would the customer miss it? If the answer is "no", don't try to fix it, just eliminate it.

A capable process performs the same way with the same result every time. Improving the capability of a process is the starting place of *Six Sigma*. An available process can be performed every time it needs to be performed and in the standard cycle time. Availability

depends on equipment reliability and uptime; therefore, it is the starting place for *Total Productive Maintenance*.

An adequate process has enough capacity to perform every time when it needs to be performed, without waiting. This is the concern of *Theory of Constraints*, *Right-sized Tooling*, and *Lean Manufacturing System Design*. A flexible process can change over quickly from one member of a product family to another one. Perfect processes have very low setup and changeover times. These flexible processes allow small amounts of parts for different products to be made frequently, resulting in high throughput and low inventory. This is the concern of the *Toyota Production System*.

In addition to being valuable, capable, available, adequate, and flexible, a perfect process also has its steps linked and coordinated by:

1. Continuous flow,
2. Customer pull, and
3. Leveled production.

Continuous flow is the quickest way to get materials from point A to point B, while allowing customers to pull products out of the value stream to prevent the waste of overproduction. Leveling the volume and mix of product flow through the process permits a steady consumption of resources and minimizes the work-in-process inventories associated with batch-and-queue production.

Womack says a perfect process is waste-free. Every step is completely valuable, perfectly capable, perfectly available, exactly adequate, and highly flexible. And, every step is connected by continuous flow, noiseless pull, and maximal leveling.

Quality Digest Magazine asked recently: What strategies does your company use for implementing management change and a culture of quality?

Sampling of results:

- For culture of quality, it's "It better be right or 'YOUR FIRED' and for management change, it's 'YOUR FIRED'
- Directives and procedures--along with culture training for all employees.
- Fear and death threats
- Process-based approach
- Toyota Production System
- Make the quality department, (all three of us), responsible for all aspects of quality.
- Unfortunately, they're briefly discussed at manager/supervisor level usually at a meeting, then "hope for the best" approach
- They say they are interested in quality and then do as they please without regard to who gets hurt.
- Placing management review input and output in the lunch rooms. Comprehensive internal auditing.
- NONE
- We have no visible apparent strategy for this.